

STRATEGIC FREIGHT TRANSPORTATION ANALYSIS

December 2003

SFTA's desired outcome is improved freight mobility for economic vitality.

WHAT IS SFTA?

The Strategic Freight Transportation Analysis (SFTA) is a set of comprehensive research projects and analyses providing data and direction for investment decisions designed to improve freight mobility for economic vitality. SFTA achieves this objective through its collaborative partnerships and integrated dynamic freight data warehouse which aid in strategic infrastructure investment choices. This includes transportation support for economic development responding to North American Free Trade Agreement (NAFTA) impacts and other emergent issues.

WHERE DID SFTA COME FROM?

The current SFTA Project follows the successful Eastern Washington Inter-modal Transportation Study (EWITS). EWITS was a six-year study (1992-1998) funded jointly by the federal government and the Washington State Department of Transportation as part of the Intermodal Surface Transportation Equity Act (ISTEA). Two key goals of the study were to forecast future freight and passenger transportation service needs for eastern Washington and pinpoint transportation system improvement options critical to economic competitiveness and mobility within eastern Washington.

Investment projects directly attributable to the EWITS study include:

- Interstate 90 - Spokane to Idaho State Line – multi-stage projects that use EWITS data for truck percentages, commodities carried, etc. The recently finished project from Sprague Ave. to Argonne Rd. cost \$45 million; Argonne Rd. to the Idaho State Line is under design and construction will cost approximately \$170 million.
- City of Colville – using EWITS data, created an alternate truck route allowing truckers to bypass the city.





WHAT ARE THE OBJECTIVES OF SFTA?

The Strategic Freight Transportation Analysis (SFTA) builds upon and extends the data and analysis generated by EWITS. The overall scope of SFTA is to maximize the efficiencies and benefits available for moving freight using Washington’s multi-modal transportation system. Some of the goals and objectives of SFTA are:

- Improve knowledge about freight corridors
- Assess the operations of roadways, rail systems, ports and barges and note freight choke points
- Analyze modal cost structures and competitive mode shares
- Conduct case studies of public/private transportation costs
- Evaluate the opportunity for public/private partnerships



WHAT IS BEING DONE?

Listed below are some tasks and deliverables carried out by SFTA in the 2001-03 biennium and expected in the 2003-05 biennium.

- Statewide Origin – Destination Truck Survey- Same Sites Over Four Seasons
- Shortline Railroad Economic Analysis Capitol and Operational Investment Needs for Shortline Railroads by Commodity or Product
- Strategic Resource Access Road Network Study
- Survey of Wheat and Barley Elevators throughout Eastern Washington
- Forest Products Survey
- Mining and Minerals Survey
- Fruit and Vegetables, Wine, Hay, Livestock

WHAT IS AN ORIGIN AND DESTINATION (O & D) STUDY?

One major element of SFTA is a statewide freight origin and destination truck survey, which collects valuable freight data through direct personal interviews of truck drivers. This statewide study involved over 300 persons conducting personal interviews at 28 separate locations. Under EWITS in 1993-94, a total of 28,000 truck drivers were interviewed, providing Washington with an extensive database on statewide freight and goods movements. The value and importance of this freight data was readily apparent and is in continual use by planners and policy makers.

WHY AN O & D STUDY NOW?

Databases become outdated, however, and decisions based upon them could become, at best, misdirected, and at worst, wrong. Therefore, SFTA has undertaken a new freight origin- destination study. This study addresses many emerging issues (changing NAFTA flows, increased border crossings and associated congestion, larger rail cars, e-commerce, changing Canadian transportation investments, economic development needs, etc.) that will redirect the focus of U.S. and Washington investments to achieve desired results.

AGENCY	DATA REQUESTED	PURPOSE
Freight Strategy and Planning: WSDOT	Truck frequencies and volumes on selected corridors. Specific truck frequencies near Toppenish, WA.	Supplement reports, presentations and freight policy plans. Address private citizen concerns regarding freight traffic and safety issues.
City of Reardan	Frequency of freight traffic moving through Reardan, WA.	The data was utilized to compare and contrast changes in freight flows, by vehicle type and commodity, between 1994 and 2002 for the town of Reardan, WA.
Puget Sound Regional Council	All Origin and Destination data from 1994 and 2002.	The data was utilized to validate truck travel demand models used by the MPO’s.
U.S. DOT	Freight movement for selected cities, including Seattle-Portland, Canada-Portland, and Canada-Seattle.	The information aided “The West Coast Corridor System” Phase I report, funded as part of the Borders and Corridors budget of USDOT. The analysis and data was used to confirm and in some cases to establish levels of freight activity within the corridor system.
Washington Wheat Commission	Database of Eastern Washington Grain Elevator Survey	Data was utilized to evaluate industry changes and shifts over the last 10 years.
Transportation Ministry, Seoul, Korea	EWITS and SFTA questionnaire design and survey implementation.	Information was utilized to help in the development of freight collection approaches for Seoul, Korea.

WHAT WAS FOUND?

- Freight truck traffic has more than doubled on some state highways and corridors between 1994 and 2003, including State Route 97 and State Route 395
- Average freight payload weights increased 20 percent between 1994 and 2003, indicating that individual vehicles are getting heavier
- “Tractor and trailer” was the vehicle configuration with the largest proportional increase, followed by “truck and trailer”
- A significant increase in “In-state to In-state” and “Out-of-state to In-state” shipments on I-90

FOR MORE INFORMATION VISIT:
[HTTP://WWW.SFTA.WSU.EDU](http://www.sfta.wsu.edu)
OR CONTACT:

Ken Casavant (509) 335 1608
Casavantk@wsu.edu

Eric Jessup (509) 335 5558
Jessup@wsu.edu

WHO USES SFTA?

SFTA’s mission is to create information that is regionally useful. Below is a sample of the breadth and extent of the request for data and analysis that has been received by the research team to date.

WHAT CAN SFTA DO FOR THE STATE OF WASHINGTON?

Overall, SFTA will aid policymakers in the State of Washington by identifying current and future needs, and recommending improvements to the multi-modal transportation system to facilitate enhanced commodity movement. Decision makers will be provided the information needed to assess regulatory issues and frame better investment policies. The wealth of information generated by SFTA will also help local and city government officials understand the type of freight traffic moving through their jurisdiction and the key industries supported by and dependent upon the transportation network. Economic Development Councils and Districts will find the information obtained useful in pursuing enhanced economic development activities and opportunities.